

312 133 A unique irrigation device was introduced into the oasis of Komul by the Chinese administrator Chang Yao in the nineteenth century. Because of the exceptionally porous sandy soil in this oasis, he had water carried for miles across the desert in wooden troughs lined with felt. This device is too expensive for present costs.

Although agriculture in northern Sinkiang is also irrigated, cultivation is not so sharply isolated in oases as it is in the south. The main water supply for irrigation comes from the Ili, Manass, and Black Irtish rivers.

Of these the Ili is formed by the confluence of three rivers, the Kash, the Kunges, and the Tekes. The volume discharged by these three rivers at high water is 100 cubic meters per second for the Kash and Tekes and 30 cubic meters per second for the Kunges.

133 731 The Manass is a slow river, but when in flood it is troublesome. It cuts extra flood channels which discharge into marshes just below the Manass oasis, and consequently its terminal lake, Telli Nor, farther out in the plain, is steadily drying up.

The headwaters of the Irtish are in the Altai, where the snow level is much lower than in the Tien Shan. The spring flood therefore comes down six weeks earlier on the Irtish than it does on the Manass, which is beneficial for spring planting.

312 631 423 Wherever irrigation is practiced, water rights are even more fundamental than land ownership. In Sinkiang, there are two bodies of custom and practice with regard to water. One is associated with the *kariz*. The other prevails much more widely, has a complicated history, and a number of variants.

The rights, obligations, and customs associated with the simple practice of leading water in ditches from rivers undoubtedly go back to the ancient form of communal enterprise in which all the members of the community contributed their labor, and the water was shared out not to individuals with proprietary rights in particular fields, but to kinship groups cultivating fields to which they had a collective title.

In a community which is still lacking in large-scale private